US005135599A

Patent Number:

5,135,599

Martin et al.

[56]

3,528,869

3.634.924

4,072,146

Date of Patent:

Aug. 4, 1992

[54]	METHOD OF MAKING A TRIPLE LUMEN CATHETER				
[75]	٠.	Geoffrey S. Martin; Michael R. LeBlane, both of Mississauga, Canada			
[73]	Assignee	Vas-Cath Incorporated, Mississauga, Canada			
1211	Appl. No.:	699,421			
-	·Filed:	May 13, 1991			
Related U.S. Application Data					
[62]	Division of	Ser. No. 288,164, Dec. 22, 1988.			
[30]	Foreig	n Application Priority Data			
-	. 22 1997 [C	A1 Canada			
.		TO 22TR 31/00: A61M 3/00			
(52)	U.S. CL				
[58]	Field of St	ercb			
	. 609 146/29	4, 60, 198, 293, 304.2, 304.5, 304.6, 308.2			
		** > * * * * * * * * * * * * * * * * *			

References Cited

U.S. PATENT DOCUMENTS

Blake et al. .

Kenissberg

Becker et al.

van Dongeren

Howes ..

9/1970 Dereniuk

1/1972

9/1979

United States Patent [19]

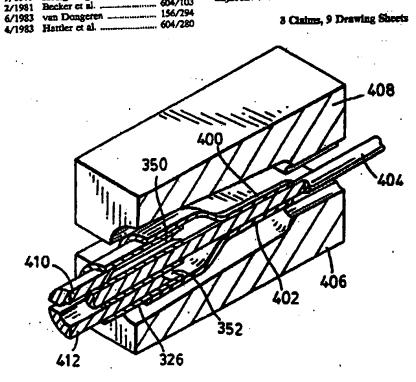
4,581,968 4,668,225 4,670,009	4/1986 5/1987 6/1987	Mahuriar Rosso et al. Bullock	604/280
4,681,564	7/1987	Gindres et al	604/250 604/164
4,769,005 4,813,429	1 /LD80	Eshel et al	. 604/43
4,961,809 4,968,307	11/1990	Dake et al.	604/280
rimaro Rua	ninerC	Pred Rosenbann	

Assistant Examiner-Mark W. Bockelman Attorney, Agent, or Firm-Rogers & Scott

ABSTRACT

A method of manufacturing a multiple lumon catheter with a tapered tip and an end aperture concentric with the main catheter body is described. The method inclindes providing a flexible elongate body extending about a longitudinal axis having a distal cad, a proximal end, an outer wall, a septum extending between spaced points on the outer wall to define first and second lumens, and a third lumen defined about said axis in a central portion of the septum. A straight wire is inserted into the third lumen to project centrally from the distal end of the body and the distal end of the body is then inserted into a tapering mould having a centrally located sperture to receive the wire. The distal end of the body is softened in the mould such that the distal end deforms to a tapered shape with the outer wall of the body merging with the septum to close the first and second lumens. Openings are then formed in the outer wall communicating with the first and second lumens adjacent the distal end.

3 Claims, 9 Drawing Sheets



29/447

128/205

604/280

604/103

Best Available Copy

Assignment Data Not Available

For Patent Number: 5135599

Search Results as of: 8/13/2004 1;55:12 P.M

If you have any comments or questions concerning the data displayed, contact OPR / Assignments at 703-808-8723 Web interface last modified: Oct. 5, 2002

3est Available Copy